



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gerrard M. Carlson et al.

Title: CARDIAC RHYTHM MANAGEMENT SYSTEM USING TIME-DOMAIN HEART RATE VARIABILITY INDICIA

Docket No.: 279.317US2

Serial No.: 10/726062

Filed: December 2, 2003

Due Date: N/A

Examiner: Unknown

Group Art Unit: 3762

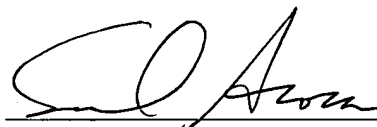
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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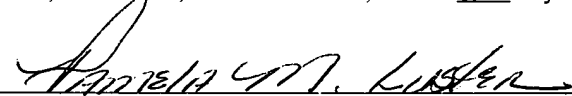
- ☒ A return postcard.
- ☒ A Communication Concerning Related Applications (2 pgs.).
- ☒ An Information Disclosure Statement (2 pgs.), Form 1449 (3 pgs.), and copies of 20 cited documents.

Please consider this a **PETITION FOR EXTENSION OF TIME** for sufficient number of months to enter these papers and please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
Customer Number 21186

By: 
Atty: Suneel Arora
Reg. No. 42,267

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 22 day of March, 2004.


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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
(GENERAL)

S/N 10/726062

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Gerrard M. Carlson et al.	Examiner:	Unknown
Serial No.:	10/726062	Group Art Unit:	3762
Filed:	December 02, 2003	Docket:	279.317US2
Title:	CARDIAC RHYTHM MANAGEMENT SYSTEM USING TIME-DOMAIN HEART RATE VARIABILITY INDICIA		

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In compliance with the duty imposed by 37 C.F.R. § 1.56, and in accordance with 37 C.F.R. §§ 1.97 *et. seq.*, the enclosed materials are brought to the attention of the Examiner for consideration in connection with the above-identified patent application. Applicants respectfully request that this Information Disclosure Statement be entered and the documents listed on the attached Form 1449 be considered by the Examiner and made of record. Pursuant to the provisions of MPEP 609, Applicants request that a copy of the 1449 form, initialed as being considered by the Examiner, be returned to the Applicants with the next official communication.

Pursuant to 37 C.F.R. §1.97(b), it is believed that no fee or statement is required with the Information Disclosure Statement. However, if an Office Action on the merits has been mailed, the Commissioner is hereby authorized to charge the required fees to Deposit Account No. 19-0743 in order to have this Information Disclosure Statement considered.

INFORMATION DISCLOSURE STATEMENT

Serial No :10/726062

Filing Date: December 02, 2003

Title: CARDIAC RHYTHM MANAGEMENT SYSTEM USING TIME-DOMAIN HEART RATE VARIABILITY INDICIA

Page 2

Dkt: 279.317US2

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this communication.

The present application is either a U.S. national patent application filed after June 30, 2003 or an international application that entered the national stage under 35 U.S.C. § 371 after June 30, 2003. Thus, Applicant believes that the U.S. Patent & Trademark Office has waived the requirement under 37 C.F.R. 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication. The waiver is provided in a pre-OG notice from the U.S. Patent & Trademark Office entitled "Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003" and dated July 11, 2003. Applicant acknowledges the requirement to submit copies of foreign patent documents and non-patent literature in accordance with 37 C.F.R. 1.98(a)(2).

Respectfully submitted,

GERRARD M. CARLSON ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
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Date March 19, 2004



By



Suneel Arora

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Name
Signature

S/N 10/726062

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gerrard M. Carlson et al. Examiner: Unknown
Serial No.: 10/726062 Group Art Unit: 3762
Filed: December 2, 2003 Docket: 279.317US2
Title: CARDIAC RHYTHM MANAGEMENT SYSTEM USING TIME-DOMAIN
HEART RATE VARIABILITY INDICIA

COMMUNICATION CONCERNING RELATED APPLICATION(S)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicants would like to bring to the Examiner's attention the following related application(s) in the above-identified patent application:

<u>Serial/Patent No.</u>	<u>Filing Date</u>	<u>Attorney Docket</u>	<u>Title</u>
09/802,316 6,678,547	March 8, 2001	279.317US1	CARDIAC RHYTHM MANAGEMENT SYSTEM USING TIME-DOMAIN HEART RATE VARIABILITY INDICIA
09/861,017	May 18, 2001	279.349US1	ATRIAL INTERVAL BASED HEART RATE VARIABILITY DIAGNOSTIC FOR CARDIAC RHYTHM MANAGEMENT SYSTEM
10/443,338	May 21, 2003	279.349US2	ATRIAL INTERVAL BASED HEART RATE VARIABILITY DIAGNOSTIC FOR CARDIAC RHYTHM MANAGEMENT SYSTEM

COMMUNICATION CONCERNING RELATED APPLICATIONS

Serial Number: 10/726062

Filing Date: December 2, 2003

Title: CARDIAC RHYTHM MANAGEMENT SYSTEM USING TIME-DOMAIN HEART RATE VARIABILITY INDICIA

Page 2

Dkt: 279.317US2

Respectfully submitted,

GERRARD M. CARLSON ET AL.


By Applicants' Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.


P.O. Box 2938

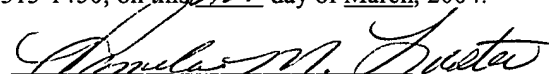
Minneapolis, MN 55402

(612) 373-6951

Date March 19, 2004 By 
Suneel Arora
Reg. No. 42,267

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)



Complete if Known

Application Number	10/726062
Filing Date	December 2, 2003
First Named Inventor	Carlson, Gerrard
Group Art Unit	3762
Examiner Name	Unknown

Sheet 1 of 3

Attorney Docket No: 279.317US2

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate
	2002/0029000	03/07/2002	Ohsaki, Rie			08/24/2001
	2002/0072683	06/13/2002	Schroepel, Edward A., et al.	600	515	10/15/2001
	US-5,291,400	03/01/1994	Gilham, J. J.	364	413.06	04/09/1992
	US-5,466,245	11/14/1995	Spinelli, J. C., et al.	607	17	11/15/1994
	US-5,560,370	10/01/1996	Verrier, , et al.	128	705	05/26/1995
	US-5,603,331	02/18/1997	Heemels, J. P., et al.	128	696	02/12/1996
	US-5,645,570	07/08/1997	Corbucci, G	607	5	06/17/1994
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	US-6,021,351	02/01/2000	Kadhiresan, V. A., et al.	607	19	06/25/1999
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	US-6,358,201	03/19/2002	Childre, Doc L., et al.	600	300	03/02/1999
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	US-6,678,547	01/13/2004	Carlson, Gerrard M., et al.	600	515	03/08/2001

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Examiner Initials *	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
	EP-0709112	05/01/1996	Ayers, G. M., et al.	A61N	1/365	
	WO-00/04950	02/03/2000	Alt, E., et al.	A61N	1/368	
	WO-00/38782	07/06/2000	Igel, D. A., et al.	A61N	1/368	
	WO-00/44274	08/03/2000	Pougatchev, V. I., et al.	A61B		
	WO-00/51680	09/08/2000	Padmanabhan, V., et al.	A61N	1/37	
	WO-94/06350	03/31/1994	Verrier, R. L., et al.	A61B	5/0452	

EXAMINER

DATE CONSIDERED

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. † Applicant's unique citation designation number (optional) ‡ Applicant is to place a check mark here if English language Translation is attached

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number	10/726062
Filing Date	December 2, 2003
First Named Inventor	Carlson, Gerrard
Group Art Unit	3762
Examiner Name	Unknown

Sheet 2 of 3

Attorney Docket No: 279.317US2

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²
	WO-98/15319	04/16/1998	Ekwall, C.	A61N	1/365	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		"Heart Rate Variability: Standards of Measurement, Physiological Interpretation, and Clinical Use", <u>European Heart Journal</u> , 17, Prepared by the Task Force of The European Society of Cardiology and The North American Society of Pacing and Electrophysiology; published by the American Heart Association, Inc.; European Society of Cardiology.(1996),pp. 354 - 381	
		"Heart Rate Variability: Standards of Measurement, Physiological Interpretation, and Clinical Use", <u>Circulation</u> , 93, (1996),pp. 1043-1065	
		BEHRENS, S. , et al., "Effects of Amiodarone on the Circadian Pattern of Sudden Cardiac Death (Department of Veterans Affairs Congestive Heart Failure-Survival Trial of Antiarrhythmic Therapy)", <u>Am. J. Cardiol.</u> , 80, (July 1997),pp. 45-48	
		BEHRENS, S. , et al., "Modification of the Circadian Pattern of Ventricular Tachyarrhythmias by Beta-Blocker Therapy", <u>Clin. Cardiol.</u> , 20, (1997),pp. 253-257	
		BERGER, R. D., et al., "An Efficient Algorithm for Spectral Analysis of Heart Rate Variability", <u>IEEE Transactions on Biomedical Engineering</u> , BME-33 (9), (Sept. 1986),pp. 900-904	
		BIGGER, J. T., et al., "Correlations Among Time and Frequency Domain Measures of Heart Period Variability Two Weeks After Acute Myocardial Infarction", <u>Arrhythmias and Conduction Disturbances</u> , 69, (April 1, 1992),pp. 891-898	
		BIGGER, JR., J. T., "Spectral Analysis of R-R Variability to Evaluate Autonomic Physiology and Pharmacology and to Predict Cardiovascular Outcomes in Humans", <u>Am. J. Cardiol.</u> , 69, (1992),pp. 891-898	
		BOCKER, D. , et al., "Ventricular Resynchronization Therapy May Restore Autonomic Balance as Evidenced by Reducing the Low Frequency to High Frequency Autonomic Ratio in Heart Failure Patients", <u>4th International Meeting organized by the Working Group on Heart Failure of the European Society of Cardiology (Abstract)</u> , Barcelona, Spain,(June 11, 2001),1 p.	
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		HAYANO, J. , et al., "Circadian Rhythms of Atrioventricular Conduction Properties in Chronic Atrial Fibrillation With and Without Heart Failure", <u>JACC</u> , 31 (1), (January 1998),pp. 158-166	

EXAMINER

DATE CONSIDERED

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>	<i>Complete if Known</i>	
	Application Number	10/726062
	Filing Date	December 2, 2003
	First Named Inventor	Carlson, Gerrard
	Group Art Unit	3762
	Examiner Name	Unknown
Sheet 3 of 3	Attorney Docket No: 279.317US2	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		LAVERY, C. E., et al., "Nonuniform Nighttime Distribution of Acute Cardiac Events", <u>Circulation</u> , 96 (10), (Nov. 18, 1997),pp. 3321-3327	
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